

CLAIMS

1. A heat sink element coupling structure (2), its single heat sink element plate comprised of an L-shaped plate having an horizontal fold formed along one lateral edge or an horizontally oriented U-shaped plate having an horizontal fold formed along two lateral edges, including a minimum of one or more coupling structures disposed on the upper and lower or left and right two sides or a certain position at the center portion of said plates, the features of which are:
said coupling structure consists of:
 - 10 a "+" or a "+" -shaped horizontal offset formed on the lateral edge of said plates;
 - inverted U-shaped or U-shaped appendages situated at the anterior section of said horizontal offsets;
 - one or two wing-shaped lock tabs formed at the two sides or either the left or the right side of said inverted U-shaped or U-shaped appendages;
 - 15 when interconnected, one or two said wing-shaped lock tabs of each said coupling structure at the two sides of one heat sink unit (element) are fitted

onto said "+" or "+ -shaped horizontal offsets of the next correspondingly situated said heat sink unit (element) such that the one or two said wing-shaped lock tabs on said front heat sink unit (element) becomes engaged onto the lateral edge of the adjacent other said heat sink unit (element) at fixed 5 horizontal distances and positions.

2. A heat sink element coupling structure (2), its single heat sink element plate comprised of an L-shaped plate having an horizontal fold formed along one lateral edge or a horizontally oriented U-shaped plate having an horizontal fold formed along two lateral edges, including a minimum of one or more coupling 10 structures disposed on the upper and lower or left and right two sides or a certain position at the center portion of said plates, the features of which are:

Said coupling structure consists of:

A "+" or a "+ -shaped horizontal offset formed on two lateral edges of said plates;

15 one or two cutaways at the two sides or either the left or the right side of said horizontal offsets, and a downward or upward lock tab at the two sides or the either left or right of the anterior section of said horizontal offsets;

when interconnected, one or two said lock tabs of each said coupling structure on one heat sink unit (element) are fitted onto said horizontal offsets of the next

correspondingly situated said heat sink unit (element) such that the one or two said lock tabs of said coupling structure on said front heat sink unit (element) become engaged onto the upper and lateral said horizontal offsets and or said cutaway at the two sides of the adjacent other said heat sink unit (element) at 5 fixed horizontal distances and positions.

3. As mentioned in Claim 1 of the heat sink element coupling structure (2) invention herein, the features include: each said wing-shaped lock tab has a vertical lock edge disposed downward or upward on its rear side
4. As mentioned in Claim 1 of the heat sink element coupling structure (2) 10 invention herein, the features include: the anterior section of each said "+" or "+" -shaped horizontal offset does not have to be folded into said inverted U-shaped or U-shaped appendages, and a vertical lock tab is folded downward or upward at the rear sides of the two said wing-shaped lock tabs.
5. As mentioned in Claim 1, Claim 3, and Claim 4 of the heat sink element 15 coupling structure (2) invention herein, each said coupling structure only has a single said wing-shaped lock tab at the anterior half sections of its said "+" or "+" -shaped horizontal offsets.

6. As mentioned in Claim 5 of the heat sink element coupling structure (2) invention herein, said cutaway is disposed between said horizontal offset of an inner side single said wing-shaped lock tab and said L-shaped or horizontally oriented U-shaped plates; disposed between said horizontal offset of an outer 5 side single said wing-shaped lock tab and the said L-shaped or horizontally oriented U-shaped plates the horizontally folded planar member is a locating notch.

7. As mentioned in Claim 1 and Claim 3 of the heat sink element coupling structure (2) invention herein, said L-shaped plate lacks a said horizontal fold and has a minimum of one narrow horizontal fold disposed at a position near a 10 said coupling structure.

8. As mentioned in Claim 2 of the heat sink element coupling structure (2) invention herein, the posterior half sections of said upper "+" or the upper "+" - shaped horizontal offsets includes first disposing two said locating notches, two 15 said cutaways, or downward and upward indentations on their upper and lower said horizontal folds and then forming the upper and the lower said horizontal offsets.

9. As mentioned in Claim 2 of the heat sink element coupling structure (2) invention herein, said coupling structure horizontal offsets includes direct situating on the upper edge of said L-shaped plate.
10. As mentioned in Claim 1 and Claim 2 of the heat sink element coupling structure (2) invention herein, said L-shaped plate or said horizontally oriented U-shaped plates have a plurality of holes.
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